

REMARKS

This responds to the Office Action dated October 9, 2007.

Claims 1, 3, 7, 11, 26, 30, 31 and 33-34 are amended, claims 29 and 39 are canceled, and claims 40-43 are added; as a result, claims 1-3, 6-12, 26-28, 30-38 and 40-43 are now pending in this application.

Claims 40-43 are new. Applicant respectfully submits claims 40-43 are allowable at least as dependent claims of patentable base claims 1 and 7, respectively, and the discussion for claims 1 and 7 below is repeated in support of claims 40-43.

Consideration and allowance of claims 40-43 are respectfully requested.

Interview Summary

Applicant's representative greatly appreciates the courtesies extended by the Examiner in the telephone interview on January 7, 2008. In the interview, the claims and cited references were discussed and the Examiner further explained the rejections. The Examiner agreed to reexamine the application with the claims as presently presented.

Applicant respectfully requests a telephone call to facilitate prosecution of the application if the claims are not found allowable in the reexamination. Applicant's representative may be reached at 612-371-2117.

§102 Rejection of the Claims

Claims 1, 2, 6-7, 11-12, 31, 34, 36 and 38-39 were rejected under 35 U.S.C. § 102(e) for anticipation by Sephr et al. (U.S. Patent No. 6,650,921). Applicant respectfully traverses the rejections of claims 1, 2, 6-7, 11-12, 31, 34, 36 and 38-39 for at least the following reasons.

Claims 1, 2, 6, 31 and 38

Applicant cannot find in the cited reference, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a conductor proximal end to a coiled conductor distal end, and at least the coiled conductor distal end is within the outer insulative body, as recited in claim 1. Claims 2, 6, 31 and 38 depend from claim 1 and thereby include all of its recitations. Further, Applicant cannot find in the cited

reference, an outer electrode disposed over the inner electrode, the outer electrode including an outer electrode outer surface, the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body, the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, and the conductor proximal end is remote from the inner electrode and the outer electrode.

Instead, Spehr shows at Figures 6 and 7 that element 27 (stranded conductor distal end) is stripped of insulation and immediately adjacent to the insulating sleeve 26. See Spehr, column 7, ll 51-56.¹ Additionally, in Figure 8, Spehr shows the conductor 63b immediately adjacent to the insulating sleeve 67. Applicant respectfully submits that Spehr fails to teach the outer conductor and inner conductor isolate the conductor distal end from the outer insulative body, as recited in claim 1. Moreover, Applicant respectfully submits that Spehr fails to teach the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, as recited in claim 1.

Reconsideration and allowance of claims 1, 2, 6, 31 and 38 are respectfully requested.

Claims 7, 11, 12, 34, 36 and 39

Applicant cannot find in the cited reference, for example, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface in combination with an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, the coiled conductor distal end is isolated from the outer insulative body, and the conductor proximal end extends away from the inner electrode and the outer electrode, as recited in claim 7. Claims 11, 12, 34, 36 and 39 depend from claim 7 and thereby include all of its recitations. Instead, Spehr shows at Figures 6 and 7 that element 27 (stranded conductor distal end) is stripped of insulation and is immediately adjacent to the insulating sleeve 26. See

¹ "The conductor cable 25b is projected through an opening 59 in the sleeve 26 . . . The distal end 50b of the cable 25b is stripped off the sleeve 29 (See FIG. 2) to expose the bare conductor element 27."

Spehr, column 7, ll 51-56. Additionally, in Figure 8, Spehr shows the conductor 63b immediately adjacent to the insulating sleeve 67. Applicant respectfully submits that Spehr fails to teach the outer conductor and inner conductor isolate the conductor distal end from the outer insulative body, as recited in claim 7. Moreover, Applicant respectfully submits that Spehr fails to teach the coiled conductor distal end (extending annularly around the inner electrode outer surface) is annularly engaged between the inner electrode outer surface and the outer electrode. Instead, as shown in Figure 8 of Spehr, the conductor 63b is engaged between the inner ring and the insulating sleeve 67.

Reconsideration and allowance of claims 7, 11, 12, 34, 36 and 39 are respectfully requested.

Claims 1, 6-7, 11, 34, 36, and 38-39 were rejected under 35 U.S.C. § 102(b) for anticipation by Nguyen et al. (U.S. Patent No. 6,006,123) or Scott (U.S. Patent No. 5,005,587). Applicant respectfully traverses the rejections of claims 1, 6-7, 11, 34, 36, and 38-39 for at least the following reasons.

Claims 1, 6 and 38

Applicant cannot find in Nguyen, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a conductor proximal end to a coiled conductor distal end, and at least the coiled conductor distal end is within the outer insulative body, as recited in claim 1. Claims 6 and 38 depend from claim 1 and thereby include all of its recitations. Further, Applicant cannot find in Nguyen, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor welded with the inner electrode outer surface at a coiled conductor weld, as recited in claim 1. Further still, Applicant cannot find in Nguyen, an outer electrode disposed over the inner electrode, the outer electrode including an outer electrode outer surface, the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer

insulative body, the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, and the conductor proximal end is remote from the inner electrode and the outer electrode, as recited in claim 1.

Applicant respectfully traverses the Office Action statement at page 2, paragraph 3, “For Nguyen, see figure 2 inner electrode 9 and outer electrode 10.” Applicant respectfully submits Nguyen states at column 5, lines 27-37, “The tip electrode 9 is attached to the catheter shaft 1 . . . The outer diameter of the *very distal end 10 of the catheter shaft 1* is reduced so that a first band electrode 11 is secured onto [the catheter shaft 1] . . . the first band electrode 11 has a conducting wire 12 for measuring electrical signal and delivering RF energy.” (Emphasis added). Reference numeral 10 therefore appears to be the distal end 10 of the catheter shaft and not an electrode. Nguyen does not therefore appear to teach the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, as recited in claim 1, because the distal end 10 of the catheter shaft 1 of Nguyen is interposed between the first band electrode 11 and the tip electrode 9. Further still, Nguyen does not appear to teach an inner electrode coupled with the at least one coiled conductor, a coiled conductor welded with the inner electrode outer surface at a coiled conductor weld, as recited in claim 1, because the conductor wire 12 of Nguyen is coupled with the first band (outer) electrode.

Further, Applicant cannot find in Scott, for example, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor welded with the inner electrode outer surface at a coiled conductor weld, as recited in claim 1. Claims 6 and 38 depend from claim 1 and thereby include all of its recitations. Additionally, Applicant cannot find in Scott, an outer electrode disposed over the inner electrode, the outer electrode including an outer electrode outer surface, the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body, the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, and the conductor proximal end is remote from the inner electrode and the outer

electrode, as recited in claim 1. Applicant respectfully submits Scott states at column 4, ll 53-54, “tip assembly 12 is crimped to the distal end of inner tube 22 at crimp region 49.” Scott does not therefore appear to teach the coiled conductor welded with the inner electrode outer surface at a coiled conductor weld or the outer electrode extends over the coiled conductor weld as recited in claim 1, because Scott teaches crimping at crimp region 49. Furthermore, Scott does not appear to teach the outer electrode engaged with at least a portion of the inner electrode outer surface, as recited in claim 1, because as shown in Figure 2 of Scott, elements 14 and 49 are physically separated by coil conductor 24.

Reconsideration and allowance of claims 1, 6 and 38 are respectfully requested.

Claims 7, 11, 34, 36 and 39

Applicant cannot find in Nguyen, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a coiled conductor proximal end to a coiled conductor distal end, as recited in claim 7. Claims 11, 34, 36 and 39 depend from claim 7 and thereby include all of its recitations. Further, Applicant cannot find in Nguyen an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface, as recited in claim 7. Further still, Applicant cannot find in Nguyen, an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, the coiled conductor distal end is isolated from the outer insulative body, and the conductor proximal end extends away from the inner electrode and the outer electrode, as recited in claim 7.

As stated previously above, Applicant respectfully traverses the Office Action statement at page 2, paragraph 3. Applicant respectfully submits Nguyen states at column 5, lines 27-37, “The tip electrode 9 is attached to the catheter shaft 1 . . . The outer diameter of the very distal end 10 of the catheter shaft 1 is reduced so that a first band electrode 11 is secured onto [the catheter shaft 1] . . . the first band electrode 11 has a conducting wire 12 for measuring electrical signal and delivering RF energy.” Reference numeral 10 therefore appears to be the distal end

10 of the catheter shaft and not an electrode. Nguyen does not therefore appear to teach the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, as recited in claim 7, because the distal end 10 of the catheter shaft 1 of Nguyen is interposed between the first band electrode 11 and the tip electrode 9. Further still, Nguyen does not appear to teach an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface as recited in claim 1, because the conductor wire 12 of Nguyen is coupled with the first band (outer) electrode 11, and the conductor wire 12 of Nguyen does not extend annularly around the tip (inner) electrode 9.

Further, Applicant cannot find in Scott, for example, means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode, as recited in claim 7. Claims 11, 34, 36 and 39 depend from claim 7 and thereby include all of its recitations. Applicant respectfully submits claim 7 is a means plus function claim under 35 U.S.C. § 112, paragraph 6. MPEP § 2183 requires the Office Action to make a prima facie case of equivalence under 35 U.S.C. § 112, paragraph 6 including an explanation or a rationale as to why the disclosure of the cited reference is equivalent to the corresponding elements disclosed in the specification. The Office Action has not presented an explanation or a rationale as to why the disclosure of Scott is equivalent to the corresponding elements disclosed in the specification as required by MPEP § 2183. Applicant respectfully submits that Scott does not appear to disclose an equivalent to the corresponding elements disclosed generally in the specification, for instance, Figures 2-7, and the associated written description. For example, Applicant cannot find an explanation or rationale as to why the teaching of Scott is equivalent to means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode, as recited in claim 7 and described in the application specification. Instead, Scott appears to show in figure 2, elements 14 and 49 are physically separated by coil conductor 24.

Reconsideration and allowance of claims 7, 11, 34, 36 and 39 are respectfully requested.

Claims 1, 3, 6-7, 11-12, 26, 29-30, 32-36 and 38 were rejected under 35 U.S.C. § 102(b) for anticipation by Muensch (U.S. Patent No. 3,769,984). Applicant respectfully traverses the rejections of claims 1, 3, 6-7, 11-12, 26, 29-30, 32-36 and 38 for at least the following reasons.

Claims 1, 3, 6, 26, 30, 32 and 38

Applicant cannot find in the cited reference, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a conductor proximal end to a coiled conductor distal end, and at least the coiled conductor distal end is within the outer insulative body, as recited in claim 1. Claims 3, 6, 26, 30, 32 and 38 depend from claim 1 and thereby include all of its recitations. Further, Applicant cannot find in the cited reference, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor welded with the inner electrode outer surface at a coiled conductor weld, as recited in claim 1. Further still, Applicant cannot find in the cited reference, an outer electrode disposed over the inner electrode, the outer electrode including an outer electrode outer surface, the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body, the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, and the conductor proximal end is remote from the inner electrode and the outer electrode, as recited in claim 1.

Moreover, Applicant cannot find in the cited reference, wherein the inner electrode and the outer electrode are welded together, without the outer electrode welded with the conductor, as recited in claim 3.

Reconsideration and allowance of claims 1, 3, 6, 26, 30, 32 and 38 are respectfully requested.

Claims 7, 11, 12 and 33-36

Applicant cannot find in the cited reference, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a coiled conductor proximal end to a coiled conductor distal end, as recited in claim 7. Claims 11, 12 and 33-36 depend from claim 7 and thereby include all of its recitations. Further, Applicant cannot find in the cited reference, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface, as recited in claim 7. Further still, Applicant cannot find in the cited reference, an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, the coiled conductor distal end is isolated from the outer insulative body, and the conductor proximal end extends away from the inner electrode and the outer electrode, as recited in claim 7.

Reconsideration and allowance of claims 7, 11, 12 and 33-36 are respectfully requested.

Claims 1, 7, 12, 36-37 and 39 were rejected under 35 U.S.C. § 102(b) for anticipation by Swoyer (U.S. Patent No. 6,062,567). Applicant respectfully traverses the rejections of claims 1, 7, 12, 36-37 and 39 for at least the following reasons.

Claim 1

Applicant cannot find in the cited reference, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a conductor proximal end to a coiled conductor distal end, and at least the coiled conductor distal end is within the outer insulative body, as recited in claim 1. Further, Applicant cannot find in the cited reference an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor welded with the inner electrode outer surface at a coiled conductor weld, as recited in claim 1. Further still, Applicant cannot find in the cited reference, an outer electrode disposed over the inner electrode, the outer electrode including an

outer electrode outer surface, the outer electrode engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body, the outer electrode extends over the coiled conductor weld and isolates the coiled conductor weld from the outer electrode outer surface, and the conductor proximal end is remote from the inner electrode and the outer electrode, as recited in claim 1.

Applicant traverses the Office Action statement at page 3, first full paragraph, “See figure 5 [Swoyer] with coil conductor 108 within an insulative body and inner electrode 214 with interlocking/disruption means – threading forming and outer electrode 216 forming and annular engagement means for engaging the wire.” Instead, Swoyer states at column 4, ll 12-14, “Threaded core 214 can be seen inserted into the lumen at the distal end 216 of connector ring 34, compressing *stranded conductor* 108 therebetween.” (Emphasis added). Applicant respectfully submits that the stranded conductor 108 as described in the specification of the cited reference and shown in Figure 5 is a stranded conductor and not a coiled conductor as recited in claim 1.

Reconsideration and allowance of claim 1 are respectfully requested.

Claims 7, 12, 36, 37 and 39

Applicant cannot find in the cited reference, for example, at least one coiled conductor disposed within the outer insulative body, the at least one coiled conductor extending from a coiled conductor proximal end to a coiled conductor distal end, as recited in claim 7. Claims 12, 36, 37 and 39 depend from claim 7 and thereby include all of its recitations. Further, Applicant cannot find in the cited reference, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface, as recited in claim 7. Further still, Applicant cannot find in the cited reference, an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, the coiled conductor distal end

is isolated from the outer insulative body, and the conductor proximal end extends away from the inner electrode and the outer electrode, as recited in claim 7.

As previously discussed above, Applicant traverses the Office Action statement at page 3, first full paragraph. Instead, Swoyer states at column 4, ll 12-14, "Threaded core 214 can be seen inserted into the lumen at the distal end 216 of connector ring 34, compressing *stranded conductor* 108 therebetween." (Emphasis added). Applicant respectfully submits that the stranded conductor 108 as described in the specification of the cited reference and shown in Figure 5 is a stranded conductor and not a coiled conductor as recited in claim 7. Moreover, because Swoyer uses the stranded conductor 108, Swoyer fails to teach the coiled conductor distal end (extending annularly around the inner electrode outer surface) is annularly engaged between the inner electrode outer surface and the outer electrode, as recited in claim 7.

Reconsideration and allowance of claims 7, 12, 36, 37 and 39 are respectfully requested.

Claims 7 and 39 were rejected under 35 U.S.C. § 102(b) for anticipation by Little (U.S. Patent No. 4,214,804) or Bornzin (U.S. Patent No. 4,502,492). Applicant respectfully traverses the rejections of claims 7 and 39 for at least the following reasons. Applicant cannot find in Little, for example, an inner electrode coupled with the at least one coiled conductor, the inner electrode defined in part by an inner electrode inner surface, an inner electrode outer surface and inner electrode end surfaces, the coiled conductor distal end extending annularly around the inner electrode outer surface, as recited in claim 7. Claim 39 depends from claim 7 and thereby includes all of its recitations. Further, Applicant cannot find in Little, an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end is annularly engaged between the inner electrode outer surface and the outer electrode, the coiled conductor distal end is isolated from the outer insulative body, and the conductor proximal end extends away from the inner electrode and the outer electrode, as recited in claim 7.

Applicant respectfully traverses the Office Action statement at page 3, third paragraph, "For Little, see figures 2 and 3 with inner conductor 28, outer conductor 19 annularly engaging coil conductor 17." Applicant submits that Little fails to show the coiled conductor distal end extending annularly around the inner electrode outer surface, and the coiled conductor distal end

being annularly engaged between the inner electrode outer surface and the outer electrode, as recited in claim 7.

Further, Applicant cannot find in Bornzin, for example, means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode, as recited in claim 7. Claim 39 depends from claim 7 and thereby includes all of its recitations. Applicant respectfully submits claim 7 is a means plus function claim under 35 U.S.C. § 112, paragraph 6. According to 35 USC § 112, paragraph 6, “an element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be *construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.*” (Emphasis added). Further, pursuant to MPEP § 2184, “The applicant may provide reasons why the applicant believes the prior art element should not be considered an equivalent to the specific structure . . . Such reasons may include, but are not limited to: (A) Teachings *in the specification* that particular prior art is not equivalent; (B) Teachings in the prior art reference itself that may tend to show nonequivalence.” (Emphasis added). Further, MPEP § 2184 II states, “When deciding whether an applicant has met the burden of proof with respect to showing nonequivalence . . . the following factors may be considered. First, unless an element performs the *identical function* specified in the claim, it cannot be an equivalent for the purposes of 35 USC 112, sixth paragraph.” (Emphasis added). MPEP § 2184 II, quoting *Pennwalt Corp. v. Durand-Wayland, Inc.* 833 F.2d 931 (Fed. Cir. 1987). MPEP § 2184 II goes on to state, “Among the indicia that will support a conclusion that one element is or is not equivalent of another are: (A) Whether the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element *disclosed in the specification.*” MPEP § 2184 II, quoting *Kemco Sales, Inc. v. Control Papers Co.*, 208 F.3d 1352 (Fed. Cir. 2000).² Pursuant to 35 USC 112, paragraph 6, and MPEP § 2184 (see above), because Applicant is allowed to rely on the specification to further describe the means for electrically and mechanically engaging the

² Pursuant to *Polumbo v. Don-Joy Co.*, “The concepts of equivalents as set forth in *Graver Tank & Mfg. Co. v. Linde Air Products*, 339 US 605, (1950) are relevant to an “equivalents” determination.” (Emphasis in the original). See MPEP § 2184 II quoting *Polumbo v. Don-Joy Co.*, 762 F.2d 969, (Fed. Cir. 1985),

outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode Applicant submits the means as described in the remarks below including relevant specification passages and indicated elements distinguishes over the cited reference.

Applicant respectfully submits the cited reference fails to teach the allegedly equivalent structure performs the *identical function* as required by MPEP § 2184 II. At paragraph 33, the specification states, for example:

The stepped portion 156 of the inner electrode 150 includes a substantially smooth outer surface 159 to which the outer electrode 160 is coupled or welded. The outer surface 159 forms an outer continuous ring, for example, to which the outer electrode 160 can be welded, such as by laser welding or resistance welding. Alternatively, the distal ends of the inner and outer electrodes 150, 160 can be laser welded so as not to affect the outer electrode surface. This arrangement allows for the electrode assembly to be connected with the conductor without substantially interfering with the surface of the outer electrode, or without substantially damaging the outer surface of the outer electrode.

The function of the means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode, as recited in claim 7, is not equivalent to the function of the allegedly equivalent structure of the cited reference. For example, column 3, ll 45-49 of Borznin states, “Crimps 50 [visible in Figure 4] maintain coiled conductor 54 tightly fixed between swaging pin 48 and tubular portion 46 of electrode 26. This structure provides mechanical and electrical coupling of conductor 54 to electrode 26.” Because the electrode 26 of Borznin uses crimps 50, as shown in Figure 4, the outer surface of the outer electrode is damaged, and the allegedly equivalent structure of Borznin does not perform the identical function of the means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode, as recited in claim 7. Because the crimped electrode 26 fails to perform the identical function of the means as required by MPEP § 2184 II, the element is not equivalent to the means for electrically and mechanically engaging the outer electrode with the inner electrode without substantially damaging the outer surface of the outer electrode.

Pursuant to 35 USC 112, paragraph 6, and MPEP § 2184, because the cited reference fails to teach the means for detecting wear of the insulation layer and its associated function as described in the specification the teaching of the cited reference is not equivalent.

Reconsideration and allowance of claims 7 and 39 are respectfully requested.

§103 Rejection of the Claims

Claims 3, 8-10, 26-30, 32-33, 35 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sephr et al. (U.S. Patent No. 6,650,921), Nguyen et al. (U.S. Patent No. 6,006,123) or Scott (U.S. Patent No. 5,005,587). Applicant cannot find in the cited references, for example, wherein the inner electrode and the outer electrode are welded together, without the outer electrode welded with the conductor, as recited in claim 3. Further, Applicant respectfully traverses the rejections of claims 3, 8-10, 26-30, 32-33, 35 and 37 for at least the following reasons. Claims 3, 26-30 and 32 are allowable at least as dependent claims of patentable base claim 1, and the discussion for claim 1 above is repeated in support of claims 3, 26-30 and 32. Additionally, Applicant respectfully submits claims 8-10, 33, 35 and 37 are allowable at least as dependent claims of patentable base claim 7, and the discussion for claim 7 above is repeated in support of claims 8-10, 33, 35 and 37.

Reconsideration and allowance of claims 3, 8-10, 26-30, 32-33, 35 and 37 are respectfully requested.

Claims 6 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Muensch (U.S. Patent No. 3,769,984) in view of Sephr (U.S. Patent No. 6,650,921). Applicant respectfully traverses the rejections of claims 6 and 12 for at least the following reason. Claims 6 and 12 are allowable at least as dependent claims of patentable base claims 1 and 7, respectively, and the discussion for claims 1 and 7 above is repeated in support of claims 6 and 12.

Reconsideration and allowance of claims 6 and 12 are respectfully requested.

Claims 2, 9 and 39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Muensch (U.S. Patent No. 3,769,984) in view of Bornzin (U.S. Patent No. 4,502,492). Applicant respectfully traverses the rejections of claims 2, 9 and 39 for at least the following reasons. Claims 2, 9 and 39 are allowable at least as dependent claims of patentable base claims 1 and 7, respectively, and the discussion for claims 1 and 7 above is repeated in support of claims 2, 9 and 39.

Reconsideration and allowance of claims 2, 9 and 39 are respectfully requested.

Claims 28 and 37 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Muensch (U.S. Patent No. 3,769,984) in view of Helland et al. (U.S. Patent No. 5,318,572). Applicant respectfully traverses the rejections of claims 28 and 37 for at least the following reasons. Claims 28 and 37 are allowable at least as dependent claims of patentable base claims 1 and 7, respectively, and the discussion for claims 1 and 7 above is repeated in support of claims 28 and 37.

Reconsideration and allowance of claims 28 and 37 are respectfully requested.

Response to Examiner's Remarks

Applicant respectfully traverses the Office Action statement at page 5, first paragraph, "The new limitation to claim 1 is not understood since the inner and outer electrode members contact the insulation in applicant's specification and thus it is question how this insulates the conductor tip. The examiner considers it's means to be that it merely covers the conductor tip and is not in contact with the insulation." Applicant respectfully submits claim 1 recites, "the coiled conductor distal end is engaged between the inner electrode outer surface and the outer electrode, the outer conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body." As stated in the claim, the inner and outer electrodes engage the coiled conductor distal end therebetween and thereby isolate the coiled conductor distal end from the insulation. The coiled conductor distal end is isolated from the insulation to prevent damage to the coil as described in the specification at paragraph 48. Referring to the Spehr at column 7, ll 51-56 and Figures 6 and 7, "The conductor cable 25b is projected through an opening 59 in the sleeve 26 . . . The distal end 50b of the cable 25b is stripped off the sleeve 29 (See FIG. 2) to expose the bare conductor element 27." As shown in Figures 6 and 7 the distal end 50b of the bare conductor element 27 is not isolated from the insulation. Instead, the distal end 50b of the bare element 27 is immediately adjacent to the insulation as opposed to the outer electrode being engaged with at least a portion of the inner electrode outer surface, the coiled conductor distal end engaged between the inner electrode outer surface and the outer electrode, the outer

conductor and inner conductor isolate the coiled conductor distal end from the outer insulative body, as recited in claim 1.

Reconsideration and allowance of claim 1 are respectfully requested.

Applicant respectfully traverses the Office Action statement at page 5, first paragraph, “With respect to the amendment to claim 7, the annular engagement is seen in each of the references to be the ring type inner and outer electrodes forming an annular contacting surface to which the conductor contacts some portion thereof.” Instead, claim 7 recites, the coiled conductor distal end extends annularly around the inner electrode outer surface in combination with an outer electrode disposed over the inner electrode, the outer electrode having an outer surface, the coiled conductor distal end (extending annularly around the inner electrode) is annularly engaged between the inner electrode outer surface and the outer electrode. The inner electrode outer surface and the outer electrode thereby provide surfaces that engage against the coiled conductor distal end along an arc extending around the electrodes where the coiled conductor correspondingly extends around the inner electrode outer surface.

Reconsideration and allowance of claim 7 are respectfully requested.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have equally addressed every assertion made in the Office Action, however, this does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at 612-371-2117 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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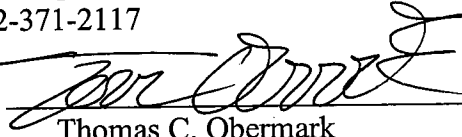
Minneapolis, MN 55402

612-371-2117

Date

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By

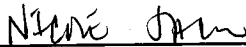


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 9 day of January 2008.

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